

## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION  
(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner  
US Department of Commerce  
United States Patent and Trademark  
Office, PCT  
2011 South Clark Place Room  
CP2/5C24  
Arlington, VA 22202  
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 21 June 2001 (21.06.01)	To:
International application No. PCT/EP99/07563	Applicant's or agent's file reference WO 24606
International filing date (day/month/year) 08 October 1999 (08.10.99)	Priority date (day/month/year)
Applicant RATSCHUNAS, Kalevi et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:

08 May 2001 (08.05.01)

in a notice effecting later election filed with the International Bureau on:

\_\_\_\_\_

2. The election  was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Pascal Piriou
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

## PATENT COOPERATION TREATY

PCT

INFORMATION CONCERNING ELECTED  
OFFICES NOTIFIED OF THEIR ELECTION

(PCT Rule 61.3)

From the INTERNATIONAL BUREAU

To:

PELLMANN, Hans-Bernd  
 Tiedtke-Bühling-Kinne  
 Bavariaring 4  
 D-80336 Munich  
 ALLEMAGNE

RECEIVED  
 EINGEGANGEN  
 - 2. Juli 2001

TBK - PATENT

Date of mailing (day/month/year) 21 June 2001 (21.06.01)		
Applicant's or agent's file reference WO 24606	IMPORTANT INFORMATION	
International application No. PCT/EP99/07563	International filing date (day/month/year) 08 October 1999 (08.10.99)	Priority date (day/month/year)
Applicant NOKIA NETWORKS OY et al		

1. The applicant is hereby informed that the International Bureau has, according to Article 31(7), notified each of the following Offices of its election:

EP :AT,BE,CH,CY,DE,DK,ES,FI,FR,GB,GR,IE,IT,LU,MC,NL,PT,SE  
 National :AU,BG,CA,CN,CZ,DE,IL,JP,KP,KR,MN,NO,NZ,PL,RO,RU,SE,SK,US

2. The following Offices have waived the requirement for the notification of their election; the notification will be sent to them by the International Bureau only upon their request:

AP :GH,GM,KE,LS,MW,SD,SL,SZ,TZ,UG,ZW  
 EA :AM,AZ,BY,KG,KZ,MD,RU,TJ,TM  
 OA :BF,BJ,CF,CG,CI,CM,GA,GN,GW,ML,MR,NE,SN,TD,TG  
 National :AE,AL,AM,AT,AZ,BA,BB,BR,BY,CH,CU,DK,EE,ES,FI,GB,GD,GE,GH,GM,HR,  
 HU, ID, IN, IS, KE, KG, KZ, LC, LR, LS, LT, LU, LV, MD, MG, MK, MW, MX, PT, SD, SG, SI, SL,  
 TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW

3. The applicant is reminded that he must enter the "national phase" before the expiration of 30 months from the priority date before each of the Offices listed above. This must be done by paying the national fee(s) and furnishing, if prescribed, a translation of the international application (Article 39(1)(a)), as well as, where applicable, by furnishing a translation of any annexes of the international preliminary examination report (Article 36(3)(b) and Rule 74.1).

Some offices have fixed time limits expiring later than the above-mentioned time limit. For detailed information about the applicable time limits and the acts to be performed upon entry into the national phase before a particular Office, see Volume II of the PCT Applicant's Guide.

The entry into the European regional phase is postponed until 31 months from the priority date for all States designated for the purposes of obtaining a European patent.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No. (41-22) 740.14.35	Authorized officer:  Pascal Piriou  Telephone No. (41-22) 338.83.38
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## PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

Date of mailing (day/month/year) 08 January 2002 (08.01.02)
Applicant's or agent's file reference WO 24606
International application No. PCT/EP99/07563

## From the INTERNATIONAL BUREAU

To:

PELLMANN, Hans-Bernd  
Tiedtke-Bühling-Kinne  
Bavariering 4  
D-80336 Munich  
ALLEMAGNE

## IMPORTANT NOTIFICATION

International filing date (day/month/year)  
08 October 1999 (08.10.99)

## 1. The following indications appeared on record concerning:

the applicant     the inventor     the agent     the common representative

Name and Address NOKIA NETWORKS OY Keilalahdentie 4 FIN-02150 Espoo Finland	State of Nationality FI	State of Residence FI
	Telephone No. +358 9 1807 0	
	Facsimile No. +358 9 1807 496	
	Teleprinter No.	

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

the person     the name     the address     the nationality     the residence

Name and Address NOKIA CORPORATION Keilalahdentie 4 FIN-02150 Espoo Finland	State of Nationality FI	State of Residence FI
	Telephone No. +358 9 1807 0	
	Facsimile No. +358 9 1807 496	
	Teleprinter No.	

## 3. Further observations, if necessary:

Change of applicant's name (merger) has been recorded.

## 4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.: (41-22) 740.14.35	Authorized officer  Maria Victoria CORTIELLO  Telephone No.: (41-22) 338.83.38
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## PATENT COOPERATION TREATY

PCT

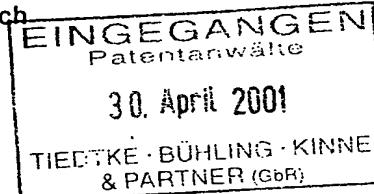
## NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

From the INTERNATIONAL BUREAU

To:

PELLMANN, Hans-Bernd  
 Tiedtke-Bühling-Kinne  
 Bavariaring 4  
 D-80336 Munich  
 ALLEMAGNE



Date of mailing (day/month/year)  
19 April 2001 (19.04.01)

Applicant's or agent's file reference  
WO 24606

## IMPORTANT NOTICE

International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/EP99/07563	08 October 1999 (08.10.99)	

Applicant  
NOKIA NETWORKS OY et al

- Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:  
AU,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

- The following designated Offices have waived the requirement for such a communication at this time:

AE,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,CA,CH,CN,CU,CZ,DE,DK,EA,EE,EP,ES,FI,GB,GD,GE,GH,  
GM,HR,HU,ID,IL,IN,IS,JP,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MD,MG,MK,MN,MW,MX,NO,NZ,OA,  
PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,UA,UG,UZ,VN,YU,ZA,ZW

The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

- Enclosed with this Notice is a copy of the international application as published by the International Bureau on 19 April 2001 (19.04.01) under No. WO 01/28171

## REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a **demand for international preliminary examination** must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

## REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the **national phase**, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer

J. Zahra

Telephone No. (41-22) 338.83.38

## INTERNATIONAL SEARCH REPORT

Int. Application No  
PCT/EP 99/07563

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H04L12/58

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 493 692 A (GOLDSTEIN RICHARD J ET AL) 20 February 1996 (1996-02-20)  abstract column 6, line 15 - line 22 column 7, line 61 -column 8, line 11 column 9, line 60 -column 10, line 38 column 14, line 49 - line 66 figures 2,3,5,6,9,17	1-5, 11-17, 23, 29-32,34
Y	—  —/—	6,10,18, 22, 25-27, 33,35

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

20 June 2000

Date of mailing of the international search report

28/06/2000

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.  
Fax: (+31-70) 340-3016

Authorized officer

Poggio, F

## INTERNATIONAL SEARCH REPORT

Int Application No  
PCT/EP 99/07563

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97 10558 A (BELL COMMUNICATIONS RES) 20 March 1997 (1997-03-20) abstract page 10, line 12 - line 25 page 11, line 18 - line 27 page 13, line 29 -page 14, line 13 —	1-3, 5, 11-15, 23
X	WO 97 28518 A (MOTOROLA INC) 7 August 1997 (1997-08-07) abstract page 30, line 32 -page 31, line 11 figure 19 —	24, 28
Y		6, 18, 25-27, 35
Y	EP 0 785 661 A (AT & T CORP) 23 July 1997 (1997-07-23) abstract column 2, line 47 -column 3, line 13 —	10, 22, 27, 33

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Int'l.	Application No
PCT/EP 99/07563	

Patent document cited in search report	Publication date	Patent family member(s)			Publication date
US 5493692 A	20-02-1996	NONE			
WO 9710558 A	20-03-1997	NONE			
WO 9728518 A	07-08-1997	AU 1701097 A		22-08-1997	
		BR 9708293 A		03-08-1999	
		CN 1219259 A		09-06-1999	
		EP 0877993 A		18-11-1998	
EP 0785661 A	23-07-1997	US 5781614 A		14-07-1998	
		AU 1019197 A		24-07-1997	
		CA 2189089 A		20-07-1997	
		JP 9233197 A		05-09-1997	

**PCT REQUEST**

Original (for SUBMISSION) - printed on 08.10.1999 02:46:24 PM

0-1	For receiving Office use only International Application No.	
0-2	International Filing Date	
0-3	Name of receiving Office and "PCT International Application"	
0-4 0-4-1	Form - PCT/RO/101 PCT Request Prepared using	<b>PCT-EASY Version 2.83 (updated 01.03.1999)</b>
0-5	Petition The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty	
0-6	Receiving Office (specified by the applicant)	<b>European Patent Office (EPO) (RO/EP)</b>
0-7	Applicant's or agent's file reference	<b>WO 24606</b>
I	Title of invention	<b>LOCATION SENSITIVE MULTIMEDIA MESSAGING (MMS)</b>
II	Applicant This person is:	<b>applicant only</b>
II-1	Applicant for	<b>all designated States except US</b>
II-4	Name	<b>NOKIA NETWORKS OY</b>
II-5	Address:	<b>Keilalahdentie 4 FIN-02150 Espoo Finland</b>
II-6	State of nationality	<b>FI</b>
II-7	State of residence	<b>FI</b>
II-8	Telephone No.	<b>+358 9 1807 0</b>
II-9	Facsimile No.	<b>+358 9 1807 496</b>
III-1	Applicant and/or inventor This person is:	<b>applicant and inventor</b>
III-1-1	Applicant for	<b>US only</b>
III-1-4	Name (LAST, First)	<b>RATSCHUNAS, Kalevi</b>
III-1-5	Address:	<b>Jämeräntaival 3 A 122 FIN-02150 Espoo Finland</b>
III-1-6	State of nationality	<b>FI</b>
III-1-7	State of residence	<b>FI</b>

## PCT REQUEST

Original (for SUBMISSION) - printed on 08.10.1999 02:46:24 PM

III-2	Applicant and/or Inventor	
III-2-1	This person is:	applicant and inventor
III-2-2	Applicant for	US only
III-2-4	Name (LAST, First)	MUHONEN, Ahti
III-2-5	Address:	c/o NOKIA NETWORKS OY Keilalahdentie 4 FIN-02150 Espoo Finland
III-2-6	State of nationality	FI
III-2-7	State of residence	FI
IV-1	Agent or common representative; or address for correspondence  The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as:  Name (LAST, First)	agent  PELLMANN, Hans-Bernd
IV-1-1		Tiedtke-Bühling-Kinne
IV-1-2	Address:	Bavariaring 4 D-80336 Munich Germany
IV-1-3	Telephone No.	+89 54 46 90
IV-1-4	Faximile No.	+89 53 26 11
IV-2	Additional agent(s)	additional agent(s) with same address as first named agent
IV-2-1	Name(s)	TIEDTKE, Harro; BÜHLING, Gerhard; KINNE, Reinhard; GRAMS, Klaus; LINK, Annette; VOLINHALS, Aurel; LESON, Thomas, Johannes, Alois; TRÖSCH, Hans-Ludwig; CHIVAROV, Georgi; GRILL, Matthias; KÜHN, Alexander; OSER, Andreas; BÖCKELEN, Rainer
V	Designation of States	
V-1	Regional Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	AP: GH GM KE LS MW SD SZ UG ZW and any other State which is a Contracting State of the Harare Protocol and of the PCT EA: AM AZ BY KG KZ MD RU TJ TM and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT EP: AT BE CH&LI CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE and any other State which is a Contracting State of the European Patent Convention and of the PCT OA: BF BJ CF CG CI CM GA GN GW ML MR NE SN TD TG and any other State which is a member State of OAPI and a Contracting State of the PCT

## PCT REQUEST

Original (for SUBMISSION) - printed on 08.10.1999 02:46:24 PM

V-2	National Patent (other kinds of protection or treatment, if any, are specified between parentheses after the designation(s) concerned)	<b>AE AL AM AT AU AZ BA BB BG BR BY CA CH&amp;LI CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW</b>	
V-5	<b>Precautionary Designation Statement</b> In addition to the designations made under items V-1, V-2 and V-3, the applicant also makes under Rule 4.9(b) all designations which would be permitted under the PCT except any designation(s) of the State(s) indicated under item V-6 below. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit.		
V-6	<b>Exclusion(s) from precautionary designations</b>	<b>NONE</b>	
VI	<b>Priority claim</b>	<b>NONE</b>	
VII-1	<b>International Searching Authority Chosen</b>	<b>European Patent Office (EPO) (ISA/EP)</b>	
VIII	<b>Check list</b>	<b>number of sheets</b>	<b>electronic file(s) attached</b>
VIII-1	Request	<b>4</b>	-
VIII-2	Description	<b>16</b>	-
VIII-3	Claims	<b>7</b>	-
VIII-4	Abstract	<b>1</b>	<b>wo24606a.txt</b>
VIII-5	Drawings	<b>3</b>	-
VIII-7	<b>TOTAL</b>	<b>31</b>	
VIII-8	<b>Accompanying items</b>	<b>paper document(s) attached</b>	<b>electronic file(s) attached</b>
VIII-16	Fee calculation sheet	✓	-
VIII-16	PCT-EASY diskette	-	<b>diskette</b>
VIII-18	<b>Figure of the drawings which should accompany the abstract</b>	<b>2</b>	
VIII-19	<b>Language of filing of the International application</b>	<b>English</b>	
IX-1	<b>Signature of applicant or agent</b>		
IX-1-1	Name (LAST, First)	<b>PELLMANN, Hans-Bernd</b>	

**FOR RECEIVING OFFICE USE ONLY**

10-1	Date of actual receipt of the purported International application	
10-2	Drawings:	
10-2-1	Received	
10-2-2	Not received	
10-3	Corrected date of actual receipt due to later but timely received papers or drawings completing the purported International application	
10-4	Date of timely receipt of the required corrections under PCT Article 11(2)	

**PCT REQUEST**

WO 24606

Original (for SUBMISSION) - printed on 08.10.1999 02:46:24 PM

10-5	International Searching Authority	ISA/EP
10-6	Transmittal of search copy delayed until search fee is paid	

**FOR INTERNATIONAL BUREAU USE ONLY**

11-1	Date of receipt of the record copy by the International Bureau	
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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>WO 24606</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.
International application No. <b>PCT/EP 99/ 07563</b>	International filing date ( <i>day/month/year</i> ) <b>08/10/1999</b>
Applicant <b>NOKIA NETWORKS OY et al.</b>	

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).
- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :
  - contained in the international application in written form.
  - filed together with the international application in computer readable form.
  - furnished subsequently to this Authority in written form.
  - furnished subsequently to this Authority in computer readable form.
  - the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
  - the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2.  Certain claims were found unsearchable (See Box I).

3.  Unity of Invention is lacking (see Box II).

4. With regard to the title,

- the text is approved as submitted by the applicant.
- the text has been established by this Authority to read as follows:

5. With regard to the abstract,

- the text is approved as submitted by the applicant.
- the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

- as suggested by the applicant.
- because the applicant failed to suggest a figure.
- because this figure better characterizes the invention.

2

None of the figures.

## PATENT COOPERATION TREATY

PCT

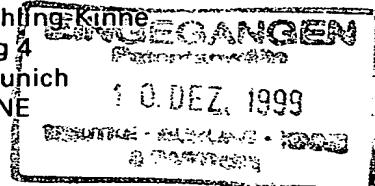
NOTIFICATION OF RECEIPT OF  
RECORD COPY

(PCT Rule 24.2(a))

From the INTERNATIONAL BUREAU

To:

PELLMANN, Hans-Bernd  
 Tiedtke-Büting-Kinne  
 Bavariaring 4  
 D-80336 Munich  
 ALLEMAGNE



Date of mailing (day/month/year) 02 December 1999 (02.12.99)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference WO 24606	International application No. PCT/EP99/07563

The applicant is hereby notified that the International Bureau has received the record copy of the international application as detailed below.

Name(s) of the applicant(s) and State(s) for which they are applicants:

NOKIA NETWORKS OY (for all designated States except US)  
 RATSCHUNAS, Kalevi et al (for US)

International filing date : 08 October 1999 (08.10.99)

Priority date(s) claimed :

Date of receipt of the record copy by the International Bureau : 25 November 1999 (25.11.99)

List of designated Offices :

AP : GH, GM, KE, LS, MW, SD, SZ, TZ, UG, ZW, SL

EA : AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

EP : AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

OA : BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

National : AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW

**ATTENTION**

The applicant should carefully check the data appearing in this Notification. In case of any discrepancy between these data and the indications in the international application, the applicant should immediately inform the International Bureau.

In addition, the applicant's attention is drawn to the information contained in the Annex, relating to:

- time limits for entry into the national phase
- confirmation of precautionary designations
- requirements regarding priority documents

A copy of this Notification is being sent to the receiving Office and to the International Searching Authority.

The International Bureau of WIPO  
 34, chemin des Colombettes  
 1211 Geneva 20, Switzerland

Facsimile No. (41-22) 740.14.35

Authorized officer:

Catherine Massetti

Telephone No. (41-22) 338.83.38

**INFORMATION ON TIME LIMITS FOR ENTERING THE NATIONAL PHASE**

The applicant is reminded that the "national phase" must be entered before each of the designated Offices indicated in the Notification of Receipt of Record Copy (Form PCT/IB/301) by paying national fees and furnishing translations, as prescribed by the applicable national laws.

The time limit for performing these procedural acts is **20 MONTHS** from the priority date or, for those designated States which the applicant elects in a demand for international preliminary examination or in a later election, **30 MONTHS** from the priority date, provided that the election is made before the expiration of 19 months from the priority date. Some designated (or elected) Offices have fixed time limits which expire even later than 20 or 30 months from the priority date. In other Offices an extension of time or grace period, in some cases upon payment of an additional fee, is available.

In addition to these procedural acts, the applicant may also have to comply with other special requirements applicable in certain Offices. It is the applicant's responsibility to ensure that the necessary steps to enter the national phase are taken in a timely fashion. Most designated Offices do not issue reminders to applicants in connection with the entry into the national phase.

For detailed information about the procedural acts to be performed to enter the national phase before each designated Office, the applicable time limits and possible extensions of time or grace periods, and any other requirements, see the relevant Chapters of Volume II of the PCT Applicant's Guide. Information about the requirements for filing a demand for international preliminary examination is set out in Chapter IX of Volume I of the PCT Applicant's Guide.

GR and ES became bound by PCT Chapter II on 7 September 1996 and 6 September 1997, respectively, and may, therefore, be elected in a demand or a later election filed on or after 7 September 1996 and 6 September 1997, respectively, regardless of the filing date of the international application. (See second paragraph above.)

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

**CONFIRMATION OF PRECAUTIONARY DESIGNATIONS**

This notification lists only specific designations made under Rule 4.9(a) in the request. It is important to check that these designations are correct. Errors in designations can be corrected where precautionary designations have been made under Rule 4.9(b). The applicant is hereby reminded that any precautionary designations may be confirmed according to Rule 4.9(c) before the expiration of 15 months from the priority date. If it is not confirmed, it will automatically be regarded as withdrawn by the applicant. There will be no reminder and no invitation. Confirmation of a designation consists of the filing of a notice specifying the designated State concerned (with an indication of the kind of protection or treatment desired) and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.

**REQUIREMENTS REGARDING PRIORITY DOCUMENTS**

For applicants who have not yet complied with the requirements regarding priority documents, the following is recalled.

Where the priority of an earlier national, regional or international application is claimed, the applicant must submit a copy of the said earlier application, certified by the authority with which it was filed ("the priority document") to the receiving Office (which will transmit it to the International Bureau) or directly to the International Bureau, before the expiration of 16 months from the priority date, provided that any such priority document may still be submitted to the International Bureau before that date of international publication of the international application, in which case that document will be considered to have been received by the International Bureau on the last day of the 16-month time limit (Rule 17.1(a)).

Where the priority document is issued by the receiving Office, the applicant may, instead of submitting the priority document, request the receiving Office to prepare and transmit the priority document to the International Bureau. Such request must be made before the expiration of the 16-month time limit and may be subjected by the receiving Office to the payment of a fee (Rule 17.1(b)).

If the priority document concerned is not submitted to the International Bureau or if the request to the receiving Office to prepare and transmit the priority document has not been made (and the corresponding fee, if any, paid) within the applicable time limit indicated under the preceding paragraphs, any designated State may disregard the priority claim, provided that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity to furnish the priority document within a time limit which is reasonable under the circumstances.

Where several priorities are claimed, the priority date to be considered for the purposes of computing the 16-month time limit is the filing date of the earliest application whose priority is claimed.

## PATENT COOPERATION TREATY

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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference WO 24606	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/EP99/07563	International filing date (day/month/year) 08/10/1999	Priority date (day/month/year) 08/10/1999

International Patent Classification (IPC) or national classification and IPC  
H04L12/58

## Applicant

NOKIA CORPORATION et al.

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 8 sheets, including this cover sheet.
  - This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand  08/05/2001	Date of completion of this report  25.02.2002
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Poggio, F  Telephone No. +49 89 2399 7958



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/07563

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):  
**Description, pages:**

1-16                   as originally filed

**Claims, No.:**

1-39                   as originally filed

**Drawings, sheets:**

1/3-3/3               as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description,               pages:
- the claims,                   Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/07563

the drawings,      sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)                  Yes: Claims 2-11,13-23,25-28,30-34,36-39  
                                No: Claims 1,12,24,29,35

Inventive step (IS)           Yes: Claims  
                                No: Claims 1-39

Industrial applicability (IA)   Yes: Claims 1-39  
                                No: Claims

2. Citations and explanations  
**see separate sheet**

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP99/07563

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

- 1 The following documents are cited:

- D1: US-A-5 493 692 (GOLDSTEIN RICHARD J ET AL) 20 February 1996 (1996-02-20)  
D2: WO 97 10558 A (BELL COMMUNICATIONS RES) 20 March 1997 (1997-03-20)  
D3: WO 97 28518 A (MOTOROLA INC) 7 August 1997 (1997-08-07)  
D4: EP-A-0 785 661 (AT & T CORP) 23 July 1997 (1997-07-23)

- 2 **Independent claim 1**

Due to the broad formulation of its subject-matter, independent claim 1 does not comply with the dispositions set out in Articles 33 (1) and (2) PCT regarding novelty of the invention.

Document D1, in fact, discloses, according to all the features of claim 1, a method for delivering messages in a network comprising at least one terminal device, comprising the steps of generating a message (cf. abstract) setting a condition for receiving said message (cf. col. 10 lines 3-7), deciding whether said message is to be received by a terminal device on the basis of said condition, and transmitting said message to said terminal device on the basis of the result of the deciding step (cf. abstract and col. 13 lines 5-18).

The wording of independent claim 1 is much too general, so that the subject matter of the claim is already known, in all essential aspects, from document D1; therefore the subject-matter of claim 1 is not new, Articles 33 (1) and (2) PCT.

- 3 Furthermore, it should be noted that even if novelty of claim 1 could be argued, based on minor differences between the features of claim 1 and those disclosed in D1, the subject-matter of claim 1 would not involve an inventive step, Articles 33

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP99/07563

(1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 1.

**3 Independent claim 12**

Independent claim 12 relates to the message delivering system adapted to perform the method described in claim 1; these features, as stated in section 2 of the present Written Opinion, are already known from document D1.

The same considerations outlined with respect to claim 1 are thus also valid for independent claim 12.

The subject-matter of independent claim 12 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 12 could be argued, based on minor differences between the features of claim 12 and those disclosed in D1, the subject-matter of claim 1 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 12.

**4 Independent claim 24**

Due to the broad formulation of its subject-matter, independent claim 24 does not comply with the dispositions set out in Articles 33 (1) and (2) PCT regarding novelty of the invention.

Document D3, in fact, discloses, according to all the features of claim 24, a report delivery condition setting device (cf. fig 19 and from page 30 line 32 to page 31 line 11), comprising

a setting means for setting a condition for receiving a message by a terminal device (cf. page 17 lines 28-35), and a supplying means for supplying said message including said condition to a message delivering device (cf. from page 11 line 28 to page 12 line 23 and fig. 3).

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP99/07563

The wording of independent claim 24 is much too general, so that the subject matter of the claim is already known, in all essential aspects, from document D3; therefore the subject-matter of claim 24 is not new, Articles 33 (1) and (2) PCT.

- 5 Furthermore, it should be noted that even if novelty of claim 24 could be argued, based on minor differences between the features of claim 24 and those disclosed in D3, the subject-matter of claim 24 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D3§ especially as this document discloses the same object and the same solution as claimed in claim 24.

**6 Independent claim 29**

Independent claim 29 relates to the message delivering device adapted to perform the method described in claim 1; the features of said claim, as stated in section 2 of the present Written Opinion, are already known from document D1.

The same considerations outlined with respect to claim 1 are thus also valid for independent claim 29.

The subject-matter of independent claim 29 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 29 could be argued, based on minor differences between the features of claim 29 and those disclosed in D1, the subject-matter of claim 29 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 29.

**7 Independent claim 35**

Independent claim 35 relates to the terminal device including the report delivery condition setting device described in claim 24 (see section 10 of the present Written Opinion); the features of said claim, as stated in section 4 of the present

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP99/07563

Written Opinion, are already known from document D3.

The same considerations outlined with respect to claim 24 are thus also valid for independent claim 35.

The subject-matter of independent claim 35 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 35 could be argued, based on minor differences between the features of claim 35 and those disclosed in D3, the subject-matter of claim 35 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 35.

**8 Dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 36 to 39**

Dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 36 to 39 do not appear to contain any additional features which in combination with the features of any claim to which they refer, involve an inventive step for the following reasons: these features are either directly derivable from prior art documents D1-D4 or represent minor design details generally known in the field of data communication networks.

The subject-matter of dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 36 to 39 therefore does not involve an inventive step so that these claims do not comply with the dispositions set out in Articles 33 (1) and (3) PCT.

**9 Certain defects in the international application**

- a) To meet requirements of Rule 6.3 (b) PCT, the independent claims should have been properly drafted in the two-part form as required by Rule 6.2 (b) PCT.
- b) The relevant documents of the International Search Report should have been acknowledged and the state of the art disclosed therein should have been briefly

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP99/07563

discussed in the opening part of the description, Rule 5.1 (a) (ii) PCT.

**10 Certain observations on the international application (clarity)**

The two definitions of the invention given in the independent claims 24 and 35 are such that the claims as a whole are not clear and concise, contrary to Article 6 PCT; the application contains, in fact two device claims of overlapping scope.

The subject-matter set out in these claims relates to embodiments having the same essential technical features and differing only in minor details.

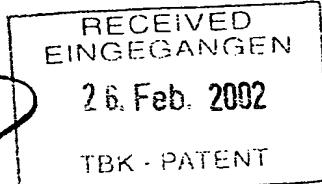
Therefore said claims should have been recast and renumbered consecutively to include only one the two claims, with dependent claims as appropriate (Rule 6.4 (a) - (c) PCT).

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

LESON, Thomas, Johannes, Alois  
TIEDTKE-BÜHLING-KINNE & PARTNER GbR  
TBK-Patent  
Bavariaring 4  
D-80336 München  
ALLEMAGNE



**PCT**

## NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Rule 71.1)

Date of mailing (day/month/year)	25.02.2002
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Applicant's or agent's file reference	<b>IMPORTANT NOTIFICATION</b>	
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WO 24606

International application No. PCT/EP99/07563	International filing date (day/month/year) 08/10/1999	Priority date (day/month/year) 08/10/1999
---	--	--

Applicant

NOKIA CORPORATION et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

#### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/	Authorized officer
---------------------------------------	--------------------

European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer

Barrio Baranano, A  
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26. Feb. 2002

TBK - PATENT

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## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>WO 24606</b>	<b>FOR FURTHER ACTION</b>		See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. <b>PCT/EP99/07563</b>	International filing date ( <i>day/month/year</i> ) <b>08/10/1999</b>	Priority date ( <i>day/month/year</i> ) <b>08/10/1999</b>	
International Patent Classification (IPC) or national classification and IPC <b>H04L12/58</b>			
Applicant <b>NOKIA CORPORATION et al.</b>			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 8 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I     Basis of the report
- II     Priority
- III     Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV     Lack of unity of invention
- V     Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI     Certain documents cited
- VII     Certain defects in the international application
- VIII     Certain observations on the international application

Date of submission of the demand <b>08/05/2001</b>	Date of completion of this report <b>25.02.2002</b>
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  <b>Poggio, F</b> Telephone No. +49 89 2399 7958



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/07563

**I. Basis of the report**

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-16                   as originally filed

**Claims, No.:**

1-39                   as originally filed

**Drawings, sheets:**

1/3-3/3               as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description,           pages:
- the claims,               Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP99/07563

the drawings, sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes:	Claims 2-11,13-23,25-28,30-34,36-39
	No:	Claims 1,12,24,29,35
Inventive step (IS)	Yes:	Claims
	No:	Claims 1-39
Industrial applicability (IA)	Yes:	Claims 1-39
	No:	Claims

2. Citations and explanations  
**see separate sheet**

**Re Item V**

**Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1 The following documents are cited:

- D1: US-A-5 493 692 (GOLDSTEIN RICHARD J ET AL) 20 February 1996 (1996-02-20)  
D2: WO 97 10558 A (BELL COMMUNICATIONS RES) 20 March 1997 (1997-03-20)  
D3: WO 97 28518 A (MOTOROLA INC) 7 August 1997 (1997-08-07)  
D4: EP-A-0 785 661 (AT & T CORP) 23 July 1997 (1997-07-23)

2 **Independent claim 1**

Due to the broad formulation of its subject-matter, independent claim 1 does not comply with the dispositions set out in Articles 33 (1) and (2) PCT regarding novelty of the invention.

Document D1, in fact, discloses, according to all the features of claim 1, a method for delivering messages in a network comprising at least one terminal device, comprising the steps of

generating a message (cf. abstract)

setting a condition for receiving said message (cf. col. 10 lines 3-7),

deciding whether said message is to be received by a terminal device on the basis of said condition, and transmitting said message to said terminal device on the basis of the result of the deciding step (cf. abstract and col. 13 lines 5-18).

The wording of independent claim 1 is much too general, so that the subject matter of the claim is already known, in all essential aspects, from document D1; therefore the subject-matter of claim 1 is not new, Articles 33 (1) and (2) PCT.

3 Furthermore, it should be noted that even if novelty of claim 1 could be argued, based on minor differences between the features of claim 1 and those disclosed in D1, the subject-matter of claim 1 would not involve an inventive step, Articles 33

(1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 1.

**3 Independent claim 12**

Independent claim 12 relates to the message delivering system adapted to perform the method described in claim 1; these features, as stated in section 2 of the present Written Opinion, are already known from document D1.

The same considerations outlined with respect to claim 1 are thus also valid for independent claim 12.

The subject-matter of independent claim 12 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 12 could be argued, based on minor differences between the features of claim 12 and those disclosed in D1, the subject-matter of claim 1 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 12.

**4 Independent claim 24**

Due to the broad formulation of its subject-matter, independent claim 24 does not comply with the dispositions set out in Articles 33 (1) and (2) PCT regarding novelty of the invention.

Document D3, in fact, discloses, according to all the features of claim 24, a report delivery condition setting device (cf. fig 19 and from page 30 line 32 to page 31 line 11), comprising

a setting means for setting a condition for receiving a message by a terminal device (cf. page 17 lines 28-35), and a supplying means for supplying said message including said condition to a message delivering device (cf. from page 11 line 28 to page 12 line 23 and fig. 3).

The wording of independent claim 24 is much too general, so that the subject matter of the claim is already known, in all essential aspects, from document D3; therefore the subject-matter of claim 24 is not new, Articles 33 (1) and (2) PCT.

- 5 Furthermore, it should be noted that even if novelty of claim 24 could be argued, based on minor differences between the features of claim 24 and those disclosed in D3, the subject-matter of claim 24 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D3§ especially as this document discloses the same object and the same solution as claimed in claim 24.

6 **Independent claim 29**

Independent claim 29 relates to the message delivering device adapted to perform the method described in claim 1; the features of said claim, as stated in section 2 of the present Written Opinion, are already known from document D1.

The same considerations outlined with respect to claim 1 are thus also valid for independent claim 29.

The subject-matter of independent claim 29 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 29 could be argued, based on minor differences between the features of claim 29 and those disclosed in D1, the subject-matter of claim 29 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 29.

7 **Independent claim 35**

Independent claim 35 relates to the terminal device including the report delivery condition setting device described in claim 24 (see section 10 of the present Written Opinion); the features of said claim, as stated in section 4 of the present

Written Opinion, are already known from document D3.

The same considerations outlined with respect to claim 24 are thus also valid for independent claim 35.

The subject-matter of independent claim 35 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 35 could be argued, based on minor differences between the features of claim 35 and those disclosed in D3, the subject-matter of claim 35 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 35.

**8 Dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 36 to 39**

Dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 36 to 39 do not appear to contain any additional features which in combination with the features of any claim to which they refer, involve an inventive step for the following reasons: these features are either directly derivable from prior art documents D1-D4 or represent minor design details generally known in the field of data communication networks.

The subject-matter of dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 36 to 39 therefore does not involve an inventive step so that these claims do not comply with the dispositions set out in Articles 33 (1) and (3) PCT.

**9 Certain defects in the international application**

- a) To meet requirements of Rule 6.3 (b) PCT, the independent claims should have been properly drafted in the two-part form as required by Rule 6.2 (b) PCT.
- b) The relevant documents of the International Search Report should have been acknowledged and the state of the art disclosed therein should have been briefly

discussed in the opening part of the description, Rule 5.1 (a) (ii) PCT.

**10 Certain observations on the international application (clarity)**

The two definitions of the invention given in the independent claims 24 and 35 are such that the claims as a whole are not clear and concise, contrary to Article 6 PCT; the application contains, in fact two device claims of overlapping scope.

The subject-matter set out in these claims relates to embodiments having the same essential technical features and differing only in minor details.

Therefore said claims should have been recast and renumbered consecutively to include only one the two claims, with dependent claims as appropriate (Rule 6.4 (a) - (c) PCT).

# PATENT COOPERATION TREATY

From the:  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

LESON, Thomas, Johannes, Alois  
TIEDTKE-BÜHLING-KINNE & PARTNER GbR  
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D-80336 München  
ALLEMAGNE

2. NOV. 2001  
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U.S. PATENT AND TRADEMARK OFFICE

PCT

WRITTEN OPINION

(PCT Rule 66)

Date of mailing (day/month/year)	27.11.2001
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Applicant's or agent's file reference	<b>REPLY DUE</b>	within 1 month(s)
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WO 24606

from the above date of mailing

International application No.	International filing date (day/month/year)	Priority date (day/month/year)
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PCT/EP99/07563

08/10/1999

08/10/1999

International Patent Classification (IPC) or both national classification and IPC
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H04L12/58

Applicant
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NOKIA NETWORKS OY et al.

1. This written opinion is the **first** drawn up by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I  Basis of the opinion
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain document cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

3. The applicant is hereby **invited to reply** to this opinion.

**When?** See the time limit indicated above. The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also:** For an additional opportunity to submit amendments, see Rule 66.4. For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 bis. For an informal communication with the examiner, see Rule 66.6.

If no reply is filed, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 08/02/2002.

UN/13.103, ✓  
27.11.01 ✓

Name and mailing address of the international preliminary examining authority:	Authorized officer / Examiner
--	-------------------------------



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**I. Basis of the opinion**

1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed"):

**Description, pages:**

1-16                  as originally filed

**Claims, No.:**

1-39                  as originally filed

**Drawings, sheets:**

1/3-3/3              as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description,        pages:
- the claims,           Nos.:

**WRITTEN OPINION**

International application No. PCT/EP99/07563

the drawings,      sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement  
Novelty (N)                  Claims 1,12,24,29,35  
Inventive step (IS)            Claims 1-39  
Industrial applicability (IA)   Claims

2. Citations and explanations  
**see separate sheet**

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1 The following documents are cited:

- D1: US-A-5 493 692 (GOLDSTEIN RICHARD J ET AL) 20 February 1996 (1996-02-20)  
D2: WO 97 10558 A (BELL COMMUNICATIONS RES) 20 March 1997 (1997-03-20)  
D3: WO 97 28518 A (MOTOROLA INC) 7 August 1997 (1997-08-07)  
D4: EP-A-0 785 661 (AT & T CORP) 23 July 1997 (1997-07-23)

2 **Independent claim 1**

Due to the broad formulation of its subject-matter, independent claim 1 does not comply with the dispositions set out in Articles 33 (1) and (2) PCT regarding novelty of the invention.

Document D1, in fact, discloses, according to all the features of claim 1, a method for delivering messages in a network comprising at least one terminal device, comprising the steps of generating a message (cf. abstract) setting a condition for receiving said message (cf. col. 10 lines 3-7), deciding whether said message is to be received by a terminal device on the basis of said condition, and transmitting said message to said terminal device on the basis of the result of the deciding step (cf. abstract and col. 13 lines 5-18).

The wording of independent claim 1 is much too general, so that the subject matter of the claim is already known, in all essential aspects, from document D1; therefore the subject-matter of claim 1 is not new, Articles 33 (1) and (2) PCT.

3 Furthermore, it should be noted that even if novelty of claim 1 could be argued, based on minor differences between the features of claim 1 and those disclosed in D1, the subject-matter of claim 1 would not involve an inventive step, Articles 33

(1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 1.

**3 Independent claim 12**

Independent claim 12 relates to the message delivering system adapted to perform the method described in claim 1; these features, as stated in section 2 of the present Written Opinion, are already known from document D1.

The same considerations outlined with respect to claim 1 are thus also valid for independent claim 12.

The subject-matter of independent claim 12 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 12 could be argued, based on minor differences between the features of claim 12 and those disclosed in D1, the subject-matter of claim 1 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 12.

**4 Independent claim 24**

Due to the broad formulation of its subject-matter, independent claim 24 does not comply with the dispositions set out in Articles 33 (1) and (2) PCT regarding novelty of the invention.

Document D3, in fact, discloses, according to all the features of claim 24, a report delivery condition setting device (cf. fig 19 and from page 30 line 32 to page 31 line 11), comprising

a setting means for setting a condition for receiving a message by a terminal device (cf. page 17 lines 28-35), and a supplying means for supplying said message including said condition to a message delivering device (cf. from page 11 line 28 to page 12 line 23 and fig. 3).

The wording of independent claim 24 is much too general, so that the subject matter of the claim is already known, in all essential aspects, from document D3; therefore the subject-matter of claim 24 is not new, Articles 33 (1) and (2) PCT.

- 5 Furthermore, it should be noted that even if novelty of claim 24 could be argued, based on minor differences between the features of claim 24 and those disclosed in D3, the subject-matter of claim 24 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D3§ especially as this document discloses the same object and the same solution as claimed in claim 24.

6 **Independent claim 29**

Independent claim 29 relates to the message delivering device adapted to perform the method described in claim 1; the features of said claim, as stated in section 2 of the present Written Opinion, are already known from document D1.

The same considerations outlined with respect to claim 1 are thus also valid for independent claim 29.

The subject-matter of independent claim 29 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 29 could be argued, based on minor differences between the features of claim 29 and those disclosed in D1, the subject-matter of claim 29 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 29.

7 **Independent claim 35**

Independent claim 35 relates to the terminal device including the report delivery condition setting device described in claim 24 (see Item VIII of the present Written Opinion); the features of said claim, as stated in section 4 of the present Written

Opinion, are already known from document D3.

The same considerations outlined with respect to claim 24 are thus also valid for independent claim 35.

The subject-matter of independent claim 35 therefore is not new so that the claim does not comply with the dispositions set out in Articles 33 (1) and (2).

Furthermore, it should be noted that even if novelty of claim 35 could be argued, based on minor differences between the features of claim 35 and those disclosed in D3, the subject-matter of claim 35 would not involve an inventive step, Articles 33 (1) and (3) PCT, having regard to the disclosure of D1 especially as this document discloses the same object and the same solution as claimed in claim 35.

**8 Dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 37 to 39**

Dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 37 to 39 do not appear to contain any additional features which in combination with the features of any claim to which they refer, involve an inventive step for the following reasons: these features are either directly derivable from prior art documents D1-D4 or represent minor design details generally known in the field of data communication networks.

The subject-matter of dependent claims 2 to 11, 13 to 23, 25 to 28, 30 to 34 and 37 to 39 therefore does not involve an inventive step so that these claims do not comply with the dispositions set out in Articles 33 (1) and (3) PCT.

**Re Item VII**

**Certain defects in the international application**

- 1 In amending the claims to meet the raised objections, the following points should also receive attention:
  - a) To meet requirements of Rule 6.3 (b) PCT, the independent claims should be

properly drafted in the two-part form as required by Rule 6.2 (b) PCT.

- b) The opening part of the description should be modified to bring it into agreement with any amended independent claims, Rule 5.1 (a) (iii) PCT.  
The invention as claimed should be disclosed in such a way that the technical problem, or problems, with which it deals can be appreciated and the solution can be understood, Rule 5.1 (a) (iii) PCT.
- c) The relevant documents of the International Search Report should be acknowledged and the state of the art disclosed therein should be briefly discussed in the opening part of the description, Rule 5.1 (a) (ii) PCT.
- d) Care should be taken to avoid giving rise to further objection by the inadvertent addition of subject-matter, Article 34 (2) (b) PCT.
- e) The Applicant is requested to file amendments by way of replacement pages. He should also take into account the requirements of Rule 66.8 PCT. In particular, fair copies of the amendments should be filed in triplicate.
- f) In order to facilitate the examination of the conformity of the amended application with the requirements of Article 34 (2) (b) PCT, the Applicant is requested to clearly identify the amendments carried out, no matter whether they concern amendments by addition, replacement or deletion, and to indicate the passages of the application as filed on which these amendments are based (see also Rule 66.8 (a) PCT).  
If the Applicant regards it as appropriate these indications could be submitted in handwritten form on a copy of the relevant parts of the application as filed.

**Re Item VIII**

**Certain observations on the international application (clarity)**

The two definitions of the invention given in the independent claims 24 and 35 are such that the claims as a whole are not clear and concise, contrary to Article 6 PCT; the application contains, in fact two device claims of overlapping scope.

**WRITTEN OPINION  
SEPARATE SHEET**

International application No. PCT/EP99/07563

The subject-matter set out in these claims relates to embodiments having the same essential technical features and differing only in minor details.

Therefore said claims should be recast and renumbered consecutively to include only one of the two claims, with dependent claims as appropriate (Rule 6.4 (a) - (c) PCT).

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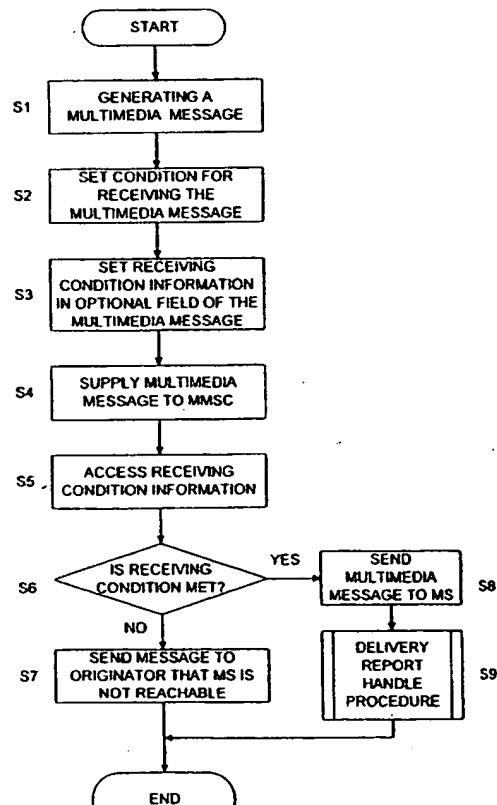
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- Published:  
— With international search report.

[Continued on next page]

(54) Title: LOCATION SENSITIVE MULTIMEDIA MESSAGING (MMS)



(57) Abstract: The invention proposes a method for delivering messages in a network comprising at least one terminal device, comprising the steps of generating a message (S1), setting a condition for receiving the message (S2, S3), deciding whether the message is to be received by the terminal device on the basis of the condition (S5, S6), and transmitting the message to the terminal device on the basis of the result of the deciding step (S8). By this method, messages are only transmitted to a terminal device if certain conditions, e.g., location conditions, are met. The invention also proposes a network system and a message generating device, a message delivering device and a terminal device adapted to the above method.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

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3 | PRV

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LOCATION SENSITIVE MULTIMEDIA MESSAGING (MMS)Field of the invention

- 5 The present invention relates to a method a network system for delivering messages in a network comprising at least one terminal device.

10 BACKGROUND OF THE INVENTION

The invention relates to delivering of messages and in particular to delivering of multimedia messages which are delivered by the so-called Multimedia Messaging Service (MMS). A Multimedia Message (MM) can contain all kind of messages, like pictures, video clips, sounds, speech etc., or any arbitrary combination of these.

From a technical viewpoint, the MMS provides a non-realtime service which operates partly in a store-and-forward fashion. Multimedia messages are transmitted using an air interface (for example, a GPRS air interface, any Wireless LAN, UMTS etc.).

- 25 The multimedia messages can be sent from an identified user/application of a network (e.g., intranet) to a mobile station (MS), from the MS to the network (intranet or internet) or from the MS to another MS.
- 30 Furthermore, a network element providing important functions for the MMS is the so-called Multimedia Messaging Service Centre (MMSC). The MMSC contains a store-and-forward function which stores the multimedia messages in a database and tries to send them to the

- 2 -

recipient mobile station (MS). For this, the MMSC is informed automatically when the MS has become reachable.

Multimedia messages usually have a validity period. The 5 messages are removed from the database of the MMSC in which they are stored if they cannot be delivered to the MS during the validity period.

Regarding the delivery of the messages, the mobile 10 terminated multimedia messages have two delivery options: The multimedia message is sent automatically to the recipient MS, or the recipient is informed of the arrived multimedia message using SMS, for example. The notification contains at least the message size and the 15 message identification. Then, the user can explicitly request the network to the multimedia message to the MS. The choice between the delivery options can based on the message size or the message content type. For example, it can be set that messages less than 1000 kB are delivered 20 automatically to the MS, or that text and voice messages are delivered automatically to the MS.

When sending messages, it is often not always useful to transmit a message to a recipient MS. For example, in 25 case such a message contains tourist information concerning a particular town, it is not useful to send this message to a user, who has left this town.

This is in particular a problem in case the message is a 30 multimedia message which is in general considerably large. Thus, if such a message is transmitted although it is not required, the corresponding network is affected to an undesirable heavy load.

- 3 -

SUMMARY OF THE INVENTION

Therefore, the object underlying the invention resides in removing the above drawbacks of the prior art.

5

This object is solved by a method according to claim 1. In particular, according to the invention, a method for delivering messages in a network comprising at least one terminal device is provided. The method comprises the 10 steps of generating a message, setting a condition for receiving the message, deciding whether the message is to be received by a terminal device on the basis of the condition, and transmitting the message to the terminal device on the basis of the result of the deciding step.

15

Alternatively, the above object is solved by a network system for delivering messages in a network as defined in claim 12. The network system comprises a message delivering device; and a terminal device. The message 20 delivering device comprises a deciding means adapted to decide whether a message is to be received by the terminal device on the basis of a condition for receiving the message. Furthermore, the message delivering device comprises a transmitting means adapted to transmit the 25 message on the basis of the deciding result of the deciding means to the terminal device.

Thus, by the method and the system according to the invention, a condition can be set for delivering a 30 message to a terminal. That is, if this condition is not met, the message is not delivered. By this measure, the load on the network is reduced since no messages are transmitted which are not required.

- 4 -

In addition, the invention proposes a report delivery condition setting device according to claim 24 for setting a condition for receiving a delivery report. The report delivery condition setting device comprises a 5 setting means for setting a condition for receiving the message by a terminal device, and a supplying means for supplying the message including the condition to a message delivering device.

10 Moreover, the invention proposes a message delivering device for delivering a message in a network according to claim 29, wherein for the message a condition for receiving the message by a terminal device is set. The message delivering device comprises a deciding means 15 adapted to decide whether the message is to be received by the terminal device on the basis of the condition, and a transmitting means adapted to transmit the message to the terminal device on the basis of the deciding result of the deciding means.

20 Furthermore, the invention proposes a terminal device for receiving a message for which a condition for receiving the message is set for use in network according to claim 35. The terminal device comprises a receiving means for 25 receiving the message, a judging means for judging whether a delivery report is to be transmitted or not in response to receiving the message, and a transmitting means for transmitting the delivery report in case the judging means judges that the delivery report is to be 30 transmitted.

Further advantageous developments are set out in the dependent claims.

- 5 -

In particular, the condition which is set for receiving or not receiving a message can be the location of the terminal, for example. That is, delivering of the message can be made dependent on whether the terminal, i.e., the 5 user, is in a particular area. This is useful for transmitting advertisements, tourist information regarding a specific area or the like.

The location can be detected, for example, by accessing a 10 Mobile Location Centre (MLC) for obtaining the latest position of the terminal. The location could also be available, for example at the home location register (HLR) or visitor location register (VLR). By this measure, the latest position can easily be obtained by 15 referring to network elements already implemented in the network.

Also other conditions for receiving the message are possible. For example, an originator of the messages can 20 be listed in a database of the terminal device, i.e., the mobile station. Hence, if a user of a terminal device is always interested to receive messages from a particular originator, this originator can be included in such a database. Then, receiving of the message can easily be 25 permitted.

Moreover, the originator can belong to a group which is defined on the network side. Thus, if the user of the terminal device is always interested to receive messages 30 from this originator group, this group can be listed in the database.

Furthermore, the recipient of the messages can be in a specific state with respect to willingness to receive 35 messages in general or messages of given type or

- 6 -

category. The state of the recipient may be enquired by the deciding means. The category condition of the message may have been set at the originator side automatically by the network, e.g., in order to prevent advertisement type 5 of messaging without permission.

The information regarding the condition for receiving a message can be included in an optional field of the message. Hence, the information necessary to judge 10 whether the deciding step is required can easily be detected within the message.

Furthermore, the terminal device can be determined as being inactive or busy in case it is decided that the 15 condition is not met. By this measure, such a terminal device can be handled in the same way as if the terminal is not available in the moment. That is, no special procedure for handling messages which do not meet the condition is required. Furthermore, it can be decided 20 whether delivering of the message should be tried later again or whether the message should not be delivered at all, as it is possible for a normal communication (e.g., phone call or fax transmission).

25 A delivery report can be sent to the originator of the message, i.e., the user of the multimedia message generator 1. However, it can be arranged that the delivery report can only be sent if the originator of the message is permitted to receive the delivery report. By 30 this measure, it is taken care of the privacy of a user. That is, by this measure the user can avoid that someone is able to track his location without his consent.

35 | The originators which are permitted to receive delivery reports from the particular terminal can be stored in a

- 7 -

list in a database. Thus, the user does not have to decide for each reception of a message whether a delivery report should be transmitted or not.

5 Alternatively, a group of users can be defined which may receive delivery reports. That is, if the decision as to whether an originator is permitted to receive delivery reports, a detection whether the originator is a member of the group is sufficient. This measure simplifies the  
10 decision.

Furthermore, in order to identify an originator as a member of such a group of users, a group identifier can be added or attached to the message. Hence, an easy  
15 detection is possible.

The message can be a multimedia message. In this case, the above advantages are considerably important since multimedia messages are usually large. Therefore, the  
20 load on the network due to messages not required can be reduced considerably.

Furthermore, the network can be a mobile network and the terminal device can be a mobile station. Especially in  
25 case of a mobile network, the invention is advantageously since a mobile network usually has only limited capacities for transmitting large messages.

30 BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will be more readily understood with reference to the accompanying drawings in which:

- 8 -

Fig. 1 shows a structure of a network system according to an embodiment,

Fig. 2 shows a flow chart of a procedure for delivering 5 multimedia messages according to the embodiment of the invention, and

Fig. 3 shows a flow chart of a procedure for handling a delivery report according to the embodiment.

10

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

In the following, a preferred embodiment of the invention 15 is described in more detail with reference to the accompanying drawings.

Fig. 1 shows a general structure of a network system according to the embodiment. According to this 20 embodiment, multimedia messages are delivered via a mobile network. The network system comprises a multimedia message generator 1, a Multimedia Messaging Services Centre MMSC 2 as an example for a message delivering device, a mobile network 3 and a mobile station MS 4 as 25 an example for a terminal device, which is adapted to receive and reproduce multimedia messages.

It is to be noted that for simplifying the description and the drawings only the network elements are shown 30 which are important for the invention. Thus, network elements like base stations BS, base station controllers BSC, Mobile Services Switching Centres MSC and the like are omitted.

- 9 -

In the following, the individual network elements mentioned above and their functions are described in more detail with reference to Fig. 1.

- 5 The multimedia message generator 1 is a device by which a multimedia message is generated and transmitted to the mobile network. By this network element, a user can generate a multimedia message. The multimedia message generator 1 can be a mobile station which is adapted to  
10 generate such multimedia messages, for example. According to this embodiment, however, it is assumed that the multimedia message generator 1 is fixed and connected to the MMSC 2 via a fixed network.
- 15 The multimedia message generator 1 can be realised by a computer including a modem (wherein the multimedia messages are sent to the MMSC via the Internet or Intranet), or by a specially designed terminal or the like.
- 20 The specific feature of the multimedia message generator 1 according to the present invention is that the user can set a condition for receiving the multimedia message by the MS 4. According to this embodiment, the condition is  
25 the location of the MS 4. That is, the message should only transmitted to the MS 4 in case the MS 4 is located in a certain area. For example, the location condition can be that the MS 4 is located in a particular town or is located in its Home Public Land Mobile Network (HPLMN), home country, in Europe or the like.  
30 The multimedia message generator 1 comprises a condition setting means 11 by which a condition regarding the message can be set. According to this embodiment, the condition setting means 11 sets the information regarding  
35 the location condition in an optional field of the

- 10 -

multimedia message. The multimedia message containing the information regarding the location is transmitted by a message transmitter 12 to the MMSC 2.

5 The MMSC 2 is a network element necessary for delivering of multimedia messages, as already described in the introductory part. According to this embodiment, the MMSC is expanded by functions for delivering the messages in which a condition for receiving can be set. For  
10 simplifying the description, only these additional means are described and shown in Fig. 1.

The MMSC 2 comprises a multimedia message delivery deciding means 21 which investigates the multimedia  
15 message received from the multimedia message generator 1. This is effected by checking the optional field of the multimedia message. That is, the multimedia message delivery deciding means 21 extracts the location condition information. The multimedia message delivery  
20 deciding means 21 knows from the normal address block of the multimedia message to which mobile station the multimedia message is to be transmitted.

Thus, the current location of the mobile station MS 4 has  
25 to be detected. According to this embodiment, the deciding means 21, i.e., the MMSC, accesses a Mobile Location Centre MLC 5 which provides the required location information regarding the MS 4. It is to be noted that this network element or a similar element is  
30 usually provided in all mobile networks.

Thus, the multimedia message delivery deciding means 21 decides based on the location condition for the message and the location information received from the MLC 5

- 11 -

whether the condition is fulfilled, i.e., whether the MS 4 is located in the requested area or not.

In case the condition is not met, a failure returning 5 means 22 of the MMSC 2 sends a message back to the multimedia generator 1. In particular, this message is the same message as if the MS 4 would be not available. Hence, for the message generator 1, the MS 4 is considered as not being reachable.

10

In case the condition is met, the multimedia message is transmitted to the MS 4 via the mobile network 3 by a message transmitter 23.

15 The multimedia message is received by a multimedia message receiver 41 of the MS 4. The multimedia message is then reproduced by using a message reproducing means 42 which can be a combination of a display and a loudspeaker, for example.

20

Furthermore, the MS 4 comprises a delivery report handler 43. This handler 43 serves to judge whether a delivery report should be transmitted or not. Namely, the user of the generator 1 can select that a delivery report should 25 be transmitted back to him in response to reception of the multimedia message by the MS 4. However, by this measure the location of a user of the MS 4 could be traced. The user might not wish that the message originator can get aware of his location, and by 30 providing the handler 43 sending of undesired delivery reports can be avoided.

According to this embodiment, the delivery report handler 43 accesses an originator database 44 in which the user 35 of the MS 4 has stored a list of originators which may

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receive delivery reports. As an alternative, such a list of originators can also be stored on the network, i.e., in a suitable network element, e.g., the MMSC.

Furthermore, a group of users which are permitted to  
5 receive delivery reports can be defined. In this case, a group identifier can be added or attached to the message such that the delivery report handler 43 has only to check whether a group identifier is present in the message (e.g., in a corresponding optional field) and  
10 whether members of this group are permitted to receive delivery reports. Group identifiers can also be stored in the database 44.

In case the originator of the current multimedia message  
15 is permitted to receive delivery reports, the delivery report is transmitted by a delivery report transmitter 45 via the mobile network 3 to the message generator 1.

The method according to this embodiment is summarised by  
20 referring to the flow charts shown in Figs. 2 and 3.

Steps S1 and S4 are carried out by the message generator. That is, a message is generated (step S1). Then, the condition for receiving the multimedia message is set  
25 (step S2). In the present embodiment, the condition is a location condition. The receiving condition information is set in an optional field of the multimedia message (step S3) and the multimedia message is supplied to the MMSC 2 (step S4).

30

The MMSC 2 accesses the receiving condition information of the multimedia message (step S5) and decides whether the receiving condition is met or not (step S6). In case the receiving condition is not met (NO in step S6), a  
35 message that the MS 4 is inactive or busy is sent to the

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multimedia message generator 1. In case the receiving condition is met (YES in step S8), the multimedia message is actually transmitted via the mobile network 3 to the MS 4.

5

In the MS 4, the multimedia message is reproduced. In response to receiving the multimedia message, a delivery report handle procedure is carried out (step S9) which is described with reference to the flowchart shown in Fig.

10 3. This procedure is carried out by the delivery report handler 43.

First, in step S91 it is determined whether a delivery report is requested for the current multimedia message.

15 In case no delivery report is requested (NO in step S91), the procedure is immediately ended. In case a delivery report is requested (YES in step S91), the originator database 44 is accessed (step S92). Then, it is determined whether the originator of the current 20 multimedia message is permitted to receive delivery reports in step S93. That is, if the originator of the present multimedia message could not be found in the database 44, it is determined that the present originator is not allowed to receive delivery reports (NO in step 25 S93), and the procedure is ended without transmitting a delivery report.

On the other hand, if the present originator could be found in the database 44, it is determined that the 30 present originator may receive delivery reports (YES in step S93), and a delivery report is transmitted to the originator (step S94).

According to a modification of the embodiment, the MS 4  
35 does not comprise an originator database 44. Instead, the

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delivery report handler 43 comprises an operation panel (not shown) by which the user of the MS 4 can input whether he wishes transmitting of the delivery report of the current multimedia message or not. By this measure, 5 the user has to decide regarding the delivery report for every multimedia message. However, this measure has the advantage that the structure of the MS 4 can be simplified and its costs can be reduced since no database is required.

10

The above description and accompanying drawings only illustrate the present invention by way of example. Thus, the embodiment of the invention and the modification thereof may vary within the scope of the attached claims. 15 For example, the embodiment and the modification thereof can be combined. That is, in case the originator of the current multimedia message could not be found in the database 44, the MS 4 can be arranged such that the user has to input whether he wishes to transmit the delivery 20 report nevertheless. Furthermore, the user can be asked whether he wishes to store such a new originator in the database 44.

As a further alternative, a default value can be provided 25 in the MS. Such a default value is used for delivery report sending and can indicate, always send/always confirm/never send for example. Thus, the user of the MS has a further possibility to control sending of the delivery report in an easy manner.

30

Moreover, according to the above described embodiment, the message delivering device is included in the MMSC which is a general control element for MMS (Multimedia Messaging Services). However, this device can also be a

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separate network element or can be included in other network elements, when appropriate.

In addition, the multimedia message generator can also be  
5 a part of a mobile station and the connection between the message generator and the MMSC (multimedia message delivering device) can be provided by the mobile network. Also, the terminal device 4 is not limited to a mobile station, this could be also a fixed station.

10

Moreover, according to the above described embodiment, the condition setting means 11 has been described as a part of the multimedia message generator 1. However, the condition setting means can also be an independent  
15 network element. For example, the messages can be generated in another network under a different administration, whereas the condition is set in the present network, for example in a proxy server or the like.

20

Finally, the condition described above is not limited to the location condition. For example, also certain information regarding the user of the addressed terminal can be used to set conditions. In this case, the  
25 multimedia message delivery deciding means 21 has to be correspondingly modified such that it can access to corresponding databases, for example to the HLR or VLR or more sophisticated databases.

30 Alternatively, it can be arranged that a user can decide whether he desires to receive a message or not in advance. For example, an originator of the messages can be listed in a database of the terminal device, i.e., the  
35 mobile station. Hence, if a user of a terminal device is always interested to receive messages from a particular

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originator, this originator can be included in such a database. Then, receiving of the message can easily be permitted. Such originators can also be included in a group of originators. Thus, this group can be included in  
5 the database.

Furthermore, the recipient of the messages can be in a specific state with respect to willingness to receive messages in general or messages of given type or  
10 category. The state of the recipient may be enquired by the deciding means. The category condition of the message may have been set at the originator side automatically by the network, e.g., in order to prevent advertisement type of messaging without permission.

**Claims**

1. A method for delivering messages in a network (3)  
5 comprising at least one terminal device, comprising the  
steps of
  - generating (S1) a message,
  - setting (S2, S3) a condition for receiving said  
message,
  - 10 deciding (S5, S6) whether said message is to be  
received by a terminal device (1) on the basis of said  
condition, and
    - transmitting (S8) said message to said terminal  
device (1) on the basis of the result of the deciding  
15 step.
  2. The method according to claim 1, wherein said  
setting step (S2, S3) is performed by a terminal device  
(4).
  - 20 3. The method according to claim 1, wherein said  
condition is the location of said terminal device (1).
  4. The method according to claim 1, further comprising  
25 the step of
    - including (S3) information regarding said condition  
in an optional field of said message.
  5. The method according to claim 1, further comprising  
30 the step of
    - determining (S7) said terminal device (1) as being  
inactive or busy in case it is decided that said  
condition is not met.

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6. The method according to claim 1, further comprising  
the step of

deciding (S22, S23) whether the originator of said  
message is permitted to receive a delivery report, and

5 transmitting (S24) said delivery report to the  
originator of said message only in case said originator  
of said message is permitted.

7) The method according to claim 6, further comprising  
10 the step of

storing a list of originators of messages in a  
database (44) which are permitted to receive delivery  
reports.

15 8) The method according to claim 6, further comprising  
the step of

defining a group of users which are allowed to  
receive delivery reports, wherein

in said deciding step it is detected whether the  
20 originator of said received message is a member of said  
group of users.

9) The method according to claim 8, further comprising  
the step of

25 adding a group identifier identifying said group of  
users to said message.

10. The method according to claim 1, wherein said  
message is a multimedia message.

30

11. The method according to claim 1, wherein said  
network (3) is a mobile network and said terminal device  
(4) is a mobile terminal device.

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12. A network system for delivering messages in a  
network (3), comprising

a message delivering device (2); and  
a terminal device (4); wherein

5 said message delivering device (2) comprises a  
deciding means (21) adapted to decide whether said  
message is to be received by said terminal device (4) on  
the basis of a condition for receiving said message, and  
a transmitting means (23) adapted to transmit said  
10 message on the basis of the deciding result of said  
deciding means (21) to said terminal device (4).

13. The system according to claim 12, further comprising  
a message generating device (1), wherein said  
15 message generating (1).

14. The system according to claim 12, further comprising  
a setting means (11) for setting a condition for  
receiving a message by said terminal device (4).

20 15. The system according to claim 12, wherein said  
condition is the location of said terminal device (4).

16. The system according to claim 12, wherein said  
25 message comprises an optional field in which information  
regarding said condition is included.

17. The system according to claim 12, wherein said  
message delivering device (2) further comprises a  
30 determining means (23) adapted to determine said terminal  
device (4) as not being reachable in case said deciding  
means (21) decides that said condition is not met.

18. The system according to claim 12, wherein said  
35 terminal device further comprises

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a judging means (43) for judging whether a delivery report is to be transmitted or not in response to receiving said message; and

5 a transmitting means (45) for transmitting said delivery report in case said judging means (43) judges that said delivery report is to be transmitted.

19. The system according to claim 17, wherein said terminal device further comprises a database (44) in  
10 which a list of originators of messages is stored which are permitted to receive delivery reports and which is accessed by said judging means (43).

20. The system according to claim 17, wherein a group of  
15 users are defined which are permitted to receive delivery reports, and

said judging means (43) is adapted to detect whether the originator of said received message is a member of said group of users.

20

21. The system according to claim 19, wherein said group identifier identifying said group of users is added to said message.

25 22. The system according to claim 12, wherein said message is a multimedia message.

23. The system according to claim 12, wherein said network (3) is a mobile network and said terminal device  
30 (4) is a mobile terminal device.

24. A report delivery condition setting device,  
comprising

a setting means (11) for setting a condition for  
35 receiving a message by a terminal device (4), and

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a supplying means (12) for supplying said message including said condition to a message delivering device (2).

5 25. The report delivery condition setting device according to claim 24, wherein said condition is the location of said terminal device (4).

10 26. The report delivery condition setting device according to claim 24, wherein said message comprises an optional field in which information regarding said condition is included.

15 27. The report delivery condition setting device according to claim 24, wherein said message is a multimedia message.

20 28. The report delivery condition setting device according to claim 24, wherein said network (3) is a mobile network and said terminal device (4) is a mobile terminal device.

25 29. A message delivering device for delivering in a network (3) a message for which a condition for receiving said message by a terminal device (4) is set, comprising a deciding means (21) adapted to decide whether said message is to be received by said terminal device (4) on the basis of said condition, and  
30 a transmitting means (23) adapted to transmit said message to said terminal device (4) on the basis of the deciding result of said deciding means (21).

35 30. The message delivering device according to claim 29, wherein said condition is the location of said terminal device (4).

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31. The message delivering device according to claim 29, wherein said message comprises an optional field in which information regarding said condition is included.

5

32. The message delivering device according to claim 29, further comprising a determining means (22) adapted to determine said terminal device (4) as being inactive or busy in case said deciding means (21) decides that said 10 condition is not met.

33. The message delivering device according to claim 29, wherein said message is a multimedia message.

15 34. The message delivering device according to claim 29, wherein said network (3) is a mobile network and said terminal device (4) is a mobile terminal device.

20 35. A terminal device for receiving a message for which a condition for receiving said message is set for use in network (3), comprising

25 a receiving means (41) for receiving said message; a judging means (42) for judging whether a delivery report is to be transmitted or not in response to receiving said message; and a transmitting means (45) for transmitting said delivery report in case said judging means (42) judges that said delivery report is to be transmitted.

30 (36) The terminal device according to claim 35, further comprising a database (44) in which a list of originators of messages is stored which are permitted to receive delivery reports and which is accessed by said judging means (42).

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37. The terminal device according to claim 36, wherein  
said condition is the location of said terminal device.

38. The terminal device according to claim 36, wherein  
5 said message is a multimedia message.

39. The terminal device according to claim 36, wherein  
said network (3) is a mobile network and said terminal  
device (4) is a mobile terminal device.